

PATENT
0600-1070

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of

Bernard BOURSIER et al. Conf. 5770
Application No. 10/589,127 Group 1789
Filed August 11, 2006 Examiner Thuy Tran Lien

METHOD FOR PRODUCING A GLUTEN-BASED BAKED PRODUCT

DECLARATION UNDER 37 CFR 1.132

Assistant Commissioner for Patents
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Sir:

I, Bernard Boursier, declare as follows:

I am one of the named inventors of the above identified application.

I am familiar with the present application and the Official Action mailed July, 22, 2011 which rejects the claims as being obvious over BRENDEL et al. 2002/0192344 (BRENDEL) and/or KLIBWA U.S. 6,217,930 (KLIBWA) in view of the Journal of the Chinese Cereals and Oils Association ("the Chinese Journal article"). None of these documents alone or as combined suggest the unexpected superior results obtained by the addition of reducing agents.

Additional tests of production of brioches were carried out under my direction to demonstrate these unexpected superior results:

Brioches have been produced with the branched maltodextrine (as disclosed in EP 1 006 128) as improving agent.

New formulation A' has been tested and compared to the results disclosed in the specification as filed in Example 2:

	Tests of Example 2			New additional tests
	A	B	C	A'
Leforest flour (g)	1009.9	1014.7	984.8	1009.7
Vital gluten (g)	40	40	40	40
Méliose glucose syrup (g)	175	175	85	175
Whole egg 4°C (g)	150	150	150	150
Fresh butter 85 wt.% (g)	300	200	200	300
Water (g)	250	250	270	250
Improving agent according to the invention (g)	0 (0%)	100 (5%)	200 (10%)	0 (0%)
Baker's yeast (g)	50	50	50	50
Salt (g)	20	20	20	20
Enzyme (g)	0.1	0.1	0	0.1
Ascorbic acid 1% (ml)	5	0	0	5
Cysteine (g)	0 (0%)	0.2 (0.01%)	0.2 (0.01%)	0.2 (0.01%)
total (g)	2000	2000	2000	2000
Water temperature	8°C	25°C	30°C	8°C
Spiral kneader Speed 1	3 min	1 min	1 min	3 min
Spiral kneader Speed 2	15 min	8 min	15 min	15 min
Temperature at the end of kneading	29.5 °C	26.5 °C	27 °C	29.4°C
Relaxation time at room temperature	15 min	15 min	15 min	15 min
Proofing time, 28°C, 85% H ₂ O	1h45	1h45	1h45	1h45

Length increase in shaping of the brioches 4/3 (cm)	36,7	32,9	32,9	Very sticky, too much
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The briochettes are shaped by hand

Baking in rotary oven, 190°C : - brioches 23 minutes
 - briochettes 15 minutes

Egg and water glaze

Average weight of brioches after baking (g)	465,3	465	463	464,6
Average weight of briochettes after baking (g)	53,4		52,77	53,1
Average volume of brioches (ml)	1747	1707	1970	1520
Volume of 3 briochettes (ml)	560	540	740	455
Final moisture content of brioche (%)	31,99	31,12	29,45	29,7

Comments:

- * In Formulation A', 0.2 g of cysteine, which is a reducing agent, has been added to the control formulation A, which does not contain any improving agent according to the present invention. The other ingredients are exactly similar and have been used in exactly the same proportions in both formulations.

The experimenter noticed that the dough obtained with Formulation A' was very sticky, too much sticky to be acceptable. Moreover, it was therefore not possible to measure the length increase in shaping of the brioches.

This stickiness could be explained by the fact that the reducing agents like cysteine lessen the cohesion of the gluten network.

In this trial, the only difference between formulations A and A' is the presence of cysteine in formulation A'. The quantity of flour is now exactly the same as well as the quantity of butter. Concerning the process parameters, the brioches and briochettes produced according to formulation A' were obtained in the same conditions than those obtained according with formulation A. Notably, the kneading time between formulations A and A' is similar.

The results remain similar to those obtained with the previous trials submitted in the previous declaration, i.e. the dough obtained with Formulation A' was very sticky, too much sticky to be acceptable, and it was therefore not possible to measure the length increase in shaping of the brioches.

We can now be certain with this new trial that the difference in dough stickiness between formulations A and A' results solely from the cysteine.

These results demonstrate that the addition of a reducing agent like cysteine has an impact on the quality of the baked product.

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false

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statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date 2012.01.11


